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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/578,567	05/25/2000	Marilee G. Berry	99PS014/KE	6188
7590 Rockwell Collins Inc Attention Kyle Eppelle 400 Collins Rd NE Cedar Rapids, IA 52498	01/11/2008		EXAMINER PARRY, CHRISTOPHER L	
			ART UNIT 2623	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/578,567	BERRY, MARILEE G.	
	<b>Examiner</b> Chris Parry	<b>Art Unit</b> 2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 31 October 2007.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 12-23 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 12-23 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/ are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application |
|  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 31 October 2007 has been entered.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 12-22 have been considered but are moot in view of the new ground(s) of rejection.

In response to applicant's argument in the last paragraph on page 7, that the Kondo reference does not disclose a system "wherein the RF channels are mapped to the programming signals *independent of an equally-distributive relationship between the RF channels and the programming signals.*"

In response, the Examiner respectfully disagrees with the Applicant because Kondo discloses the claimed mapping at least one of the plurality of RF channels to the programming signals assigned to the stored digital media, such that the at least one RF channel is configured to transmit multiple programming signals on a single RF channel based on the hardware configuration of the passenger entertainment system as met by

the video signals a<sub>1</sub>, a<sub>2</sub>, etc., as shown in Figs. 1 and 2 (see col. 4, lines 5-44), and more specifically, by digitally compressing the 4 to 6 channels or programming signals (i.e. a<sub>1</sub> to a<sub>4</sub> or a<sub>1</sub> to a<sub>6</sub>) according to MPEG standards, supplying the signals or channels to a time-division multiplexer 31, which provides a digital signal or channel b<sub>1</sub> of 6 Mbps to the RF modulator 32, as shown in Fig. 2, for example, where the RF modulator provides an RF signal or channel c<sub>1</sub> which includes the 4 or 6 channels of digital video a<sub>1</sub> to a<sub>4</sub>, or a<sub>1</sub> to a<sub>6</sub> (see col. 4, lines 5-44 and Figs. 1-2 and 5, also see col. 4, line 61 – col. 6, line 67). More specifically, Kondo teaches **mapping at least one of the plurality of RF channels (c<sub>1</sub> to c<sub>22</sub> – c<sub>1</sub> shown in figure 2) to the programming signals (a<sub>1</sub> to a<sub>80</sub>) assigned to the stored digital media (10A-10T - figure 1)**, such that the at least one RF channel (c<sub>1</sub>) is configured to transmit multiple programming signals (a<sub>1</sub> to a<sub>4</sub> – figure 2) on a single RF channel (c<sub>1</sub>) based on the hardware configuration of the passenger entertainment system (figure 1), wherein the RF channels (c<sub>1</sub> to c<sub>20</sub>) are mapped to the programming signals (a<sub>1</sub> to a<sub>80</sub>) independent of an equally-distributive relationship between the RF channels and the programming signals (Col. 4, lines 5-44). Therefore, Kondo discloses the claimed “wherein the RF channels are mapped to the programming signals independent of an equally-distributive relationship between the RF channels and the programming signals” as described above.

In response to applicant's argument on page 9, first paragraph, that Reed is silent on disclosing "wherein the passenger control unit is further configured to enable a

"user to toggle between programming signals and to directly select a particular programming signal" the examiner respectfully disagrees.

Reed discloses a passenger control unit (16 – figures 1, 15 and 16), **wherein the passenger control unit is further configured to enable a user to toggle between programming signals (channel up/down control) and to directly select a particular programming signal** (data entry keys include a numeric keypad) (Col. 18, line 43 to Col. 19, line 6).

### ***Claim Objections***

3. Claim 23 is objected to because of the following informalities: On line 3 of claim 23, "and to select a from a first viewable program" should be changes to --and to select from a first viewable program--. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 12-17 and 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo et al. "Kondo" (USPN 5,666,151) [of record] in view of Reed et al. "Reed" (USPN 6,058,288) [of record].

Regarding Claim 12, Kondo discloses a method of transmitting programming signals (a<sub>1</sub> to a<sub>80</sub>) to a passenger seat (16A-16C – figure 1) of an aircraft, the passenger seat including a seat controller unit (18A – figure 1) and a passenger control unit (33A-33C - figure 1), the passenger control unit being configured to allow a passenger to change between a plurality of program channels (f<sub>1</sub> to f<sub>22</sub>), wherein the program channels are configured to provide a plurality of programming signals (a<sub>1</sub> to a<sub>80</sub>), the plurality of program channels being delivered on one of a plurality of RF channels (c<sub>1</sub> to c<sub>22</sub>) (Col. 4, lines 5-29), comprising: mapping at least one of the plurality of RF channels (c<sub>1</sub> to c<sub>20</sub> – c<sub>1</sub> shown in figure 2) to the programming signals (a<sub>1</sub> to a<sub>4</sub>) assigned to the stored digital media (10A-10T - figure 1), such that the at least one RF channel (c<sub>1</sub>) is configured to transmit multiple programming signals (a<sub>1</sub> to a<sub>4</sub> - figure 2) on a single RF channel (c<sub>1</sub>) based on the hardware configuration of the passenger entertainment system (figure 1), wherein the RF channels (c<sub>1</sub> to c<sub>20</sub>) are mapped to the programming signals (a<sub>1</sub> to a<sub>80</sub>) independent of an equally-distributive relationship between the RF channels and the programming signals (Col. 4, lines 5-44). Kondo further teaches digitally compressing the 4 to 6 channels or programming signals (i.e. a1 to a4 or a1 to a6) according to MPEG standards, supplying the signals or channels to a time-division multiplexer 31, which provides a digital signal or channel b1 of 6 Mbps to the RF modulator 32, as shown in Fig. 2, for example, where the RF modulator provides an RF signal or channel c1 which includes the 4 or 6 channels of digital video a1 to a4, or a1 to a6 (see col. 4, lines 5-44 and Figs. 1-2 and 5, also see col. 4, line 61 – col. 6, line 67).

Kondo teaches displaying the program channel corresponding to the programming signal (providing video images through liquid crystal monitors 28), such that the passenger control unit (33 – figure 1) enables a user to toggle between program channels, wherein the RF channels are configured to be mapped independent of an equally-distributive relationship with the programming signals (Col. 5, line 26 to Col. 6, line 30).

Kondo is silent on disclosing retrieving a system configuration of a passenger entertainment system, wherein the system configuration is retrievable upon activating the passenger entertainment system; identifying digital media stored in a digital media file server of the passenger entertainment system, such that a programming database is generated, wherein the programming database is configured to assign multiple programming signals to the stored digital media; storing the program channel assignment information in the seat controller unit; and displaying on the passenger control unit the program channel corresponding to the programming signal, such that the passenger control unit enables a user to toggle between program channels, wherein the RF channels are configured to be mapped independent of an equally-distributive relationship with the programming signals, wherein the passenger control unit is further configured to enable a user to toggle between programming signals and to directly select a particular programming signal.

In an analogous art, Reed discloses a method for transmitting programming signals to a passenger seat (12 – figure 1) of an aircraft (Col. 5, lines 31-55), comprising: retrieving a system configuration of a passenger entertainment system,

wherein the system configuration is retrievable upon activating the passenger entertainment system (Col. 14, lines 23-47 and Col. 19, lines 21-31).

Reed further discloses identifying digital media stored in a digital media file server (various entertainment servers 24 – figure 1) of the passenger entertainment system (10 – figure 1), such that a programming database is generated (Col. 19, lines 21-47), wherein the programming database is configured to assign multiple programming signals to the stored digital media (Col. 21, lines 57-63; Col. 23, lines 21-47; and Col. 25, lines 52-63).

Reed teaches storing the program channel assignment information in the seat controller unit (Col. 14, lines 23-53 and Col. 17, line 23 to Col. 18, line 10).

Reed further teaches displaying on the passenger control unit (16 – figure 1) the program channel corresponding to the programming signal, such that the passenger control unit enables a user to toggle between program channels, wherein the RF channels are configured to be mapped independent of an equally-distributive relationship with the programming signals, wherein the passenger control unit is further configured to enable a user to toggle between programming signals (channel up/down control) and to directly select a particular programming signal (data entry keys include a numeric keypad) (Col. 18, lines 21-50 and Col. 18, line 59 to Col. 19, line 6). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kondo to include retrieving system configurations and identifying digital media stored in media servers as taught by Reed for the benefit of efficiently

providing multiple entertainment sources to video monitors located at passenger seat locations by reducing data bottlenecks and long response times during peak operation.

As for Claim 13, Kondo and Reed disclose, in particular Kondo teaches generating display signals from the programming signals (Col. 5, lines 26-65); and displaying the display signals corresponding to the program selection (Col. 5, line 65 to Col. 6, line 30).

As for Claim 14, Kondo and Reed disclose, in particular Reed teaches wherein the program selection is changed using up/down channel selection buttons on the passenger control unit and wherein a program channel that is next in sequence to the program channel corresponding to a current program selection is displayed on the passenger control unit in response to an up channel selection and a program channel that is previous in sequence to the program channel corresponding to the current program selection is displayed on the passenger control unit in response to a down channel selection (Col. 18, line 43 to Col. 19, line 6).

As for Claim 15, Kondo and Reed disclose, in particular Kondo teaches allocating a first plurality of RF channels ( $c_{21}$ ) to carry programming signals from a first device (analog video provider 11) generating NTSC video streams based on the system configuration (Col. 4, lines 45-50); and allocating a second plurality of RF channels ( $c_1$  to  $c_{20}$ ) to carry programming signals from a second device (digital video provider 10)

generating MPEG video streams based on the system configuration (Col. 4, lines 5-44) (Col. 4, line 61 to Col. 5, line 25; and Col. 6, lines 31-49).

As for Claim 16, Kondo and Reed disclose, in particular Kondo teaches wherein each of the first plurality of RF channels ( $c_{21}$ ) carries a single NTSC video stream and each of the second plurality of RF channels ( $c_1$ ) carries multiple MPEG video streams ( $a_1$  to  $a_4$ ) (Col. 4, lines 5-50; Col. 4, line 61 to Col. 5, line 25; and Col. 6, lines 31-49).

As for Claim 17, Kondo and Reed disclose, in particular Kondo teaches allocating one of the second plurality of RF channels ( $c_1$ ) to carry multiple MPEG video streams ( $a_1$  to  $a_4$ ) corresponding to one program channel ( $b_1$ ) (Col. 4, lines 5-50).

As for Claim 20, Kondo and Reed disclose, in particular Reed teaches wherein the one program channel corresponds to a video-on-demand program channel (Col. 23, lines 21-47 and Col. 25, lines 52-63).

As for Claim 21, Kondo and Reed disclose, in particular Reed teaches wherein the multiple MPEG video streams corresponding to the video-on-demand program channel correspond to different program selections and are transmitted over said RF channel at a start time commanded by the passenger (Col. 23, line 21 to Col. 24, line 35). Reed discloses passengers can individually control playing of a VOD program so therefore multiple MPEG video streams can start at different times.

Regarding Claim 22, Kondo discloses a method of identifying a program channel selection in a passenger entertainment system (figure 1), the passenger entertainment system having a seat controller unit (18 - figure 1) and a plurality of RF channels ( $c_1$  to  $c_{20}$ ) for providing a plurality of program channels ( $a_1$  to  $a_{80}$ ) on each of the RF channels (Col. 4, lines 5-29), the steps of the method comprising: assigning the program channels ( $a_1$  to  $a_{80}$ ) to the digital media (MPEG files) stored on the digital media file server (digital video provider 10) (Col. 4, line 61 to Col. 5, line 25).

Kondo further discloses assigning one of the plurality of RF channels ( $c_1$  to  $c_{20}$  –  $c_1$  shown in figure 2) to the program channels ( $a_1$  to  $a_{80}$ ) assigned to the digital media stored on the digital media file server, such that each RF channel ( $c_1$ ) is configured to transmit multiple program channels ( $a_1$  to  $a_4$ ) based on the hardware configuration of the passenger entertainment system, wherein the RF channels are assigned to the program channels independent of a proportionate distributive relationship between the RF channels and the program channels (Col. 4, lines 5-44). Kondo further teaches digitally compressing the 4 to 6 channels or programming signals (i.e.  $a_1$  to  $a_4$  or  $a_1$  to  $a_6$ ) according to MPEG standards, supplying the signals or channels to a time-division multiplexer 31, which provides a digital signal or channel  $b_1$  of 6 Mbps to the RF modulator 32, as shown in Fig. 2, for example, where the RF modulator provides an RF signal or channel  $c_1$  which includes the 4 or 6 channels of digital video  $a_1$  to  $a_4$ , or  $a_1$  to  $a_6$  (see col. 4, lines 5-44 and Figs. 1-2 and 5, also see col. 4, line 61 – col. 6, line 67).

Kondo teaches displaying the program channel corresponding to the programming signal (providing video images through liquid crystal monitors 28), such that the passenger control unit (33 – figure 1) enables a user to toggle between program channels, wherein the RF channels are configured to be mapped independent of an equally-distributive relationship with the programming signals (Col. 5, line 26 to Col. 6, line 30).

Kondo is silent on disclosing dynamically identifying a hardware configuration of the passenger entertainment system, wherein the hardware configuration is assessable upon initiating the passenger entertainment system; identifying digital media stored in a digital media file server of the passenger entertainment system; storing the program channel assignment information in a memory; providing the program channel assignment information to the seat controller unit; and displaying the program channel on a passenger control unit, such that the passenger control unit enables a user to toggle between program channels, wherein the program channels are configured to be mapped to correspond to m~ assigned RF channel having multiple video streams independent of the proportionate distributive relationship wherein the passenger control unit is further configured to enable a user to toggle between programming signals and to directly select a particular programming signal.

In an analogous art, Reed discloses a method for identifying a program channel selection in a passenger entertainment system (Col. 5, lines 31-55), comprising: dynamically identifying a hardware configuration of the passenger entertainment

system, wherein the hardware configuration is assessable upon initiating the passenger entertainment system (Col. 5, lines 55-65; Col. 14, lines 23-47 and Col. 19, lines 21-31).

Reed further discloses identifying digital media stored in a digital media file server (various entertainment servers 24 – figure 1) of the passenger entertainment system (Col. 19, lines 21-47; Col. 21, lines 57-63; Col. 23, lines 21-47; and Col. 25, lines 52-63).

Reed teaches storing the program channel assignment information in a memory and providing the program channel assignment information to the seat controller unit (Col. 14, lines 23-53 and Col. 17, line 23 to Col. 18, line 10).

Reed further teaches displaying on the passenger control unit (16 – figure 1) the program channel corresponding to the programming signal, such that the passenger control unit enables a user to toggle between program channels, wherein the RF channels are configured to be mapped independent of an equally-distributive relationship with the programming signals, wherein the passenger control unit is further configured to enable a user to toggle between programming signals (channel up/down control) and to directly select a particular programming signal (data entry keys include a numeric keypad) (Col. 18, lines 21-50 and Col. 18, line 59 to Col. 19, line 6). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kondo to include retrieving system configurations and identifying digital media stored in media servers as taught by Reed for the benefit of efficiently providing multiple entertainment sources to video monitors located at passenger seat locations by reducing data bottlenecks and long response times during peak operation.

Regarding Claim 23, Kondo discloses a system (figure 1) for providing program content (digital and analog video) to a passenger seat (16 – figure 1) associated with an occupant on an aircraft, the passenger seat including a control system (15 – figure 1) configured to tune to a first tunable channel and a second tunable channel, and to select from a first viewable program, a second viewable program, a third viewable program, and a fourth viewable program (Col. 4, lines 5-29), the system comprising:

an RF output (17 – figure 1) comprising a first RF channel, a second RF channel, and a third RF channel, wherein the first RF channel is configured to carry a video stream associated with the first viewable program, the second RF channel is configured to carry a video stream associated with the second viewable program, and the third RF channel is configured to carry two video streams associated with the third and fourth viewable programs, respectively, wherein the first tunable channel is associated with the first RF channel and the second tunable channel is associated with the second RF channel and the third RF channel (Col. 4, lines 5-60);

wherein the control system is further configured to tune to the appropriate RF channel, extract the video stream associated with the selected viewable program, and to display an indicator associated with the tunable channel associated with the appropriate RF channel (Col. 5, line 43 to Col. 6, line 30); and

wherein the control system is further configured to allow the occupant to select from the first tunable channel and the second tunable channel (Col. 4, line 61 to Col. 5, line 19 and Col. 5, line 26 to Col. 6, line 30).

Kondo is silent on disclosing a server configured to store information regarding the associations of the tunable channels, the RF channels, and the viewable programs; and wherein the control system is further configured to allow the occupant to directly select from the first viewable program, the second viewable program, the third viewable program, and the fourth viewable program without channel surfing.

In an analogous art, Reed discloses a system (10 – figure 1) for providing program content to a passenger seat (12 – figure 1) associated with an occupant on an aircraft (Col. 5, lines 31-55), the system comprising: a server (22 – figure 1) configured to store information regarding the associations of the tunable channels, the RF channels, and the viewable programs (Col. 14, lines 23-47; Col. 7, lines 56-67; Col. 8, lines 12-29; and Col. 19, lines 21-31).

Reed further discloses wherein the control system (18 – figures 1 and 15) is further configured to allow the occupant to directly select from the first viewable program, the second viewable program, the third viewable program, and the fourth viewable program without channel surfing (i.e., passenger can use numerical keypad to directly enter the channel number) (Col. 18, line 2 to Col. 19, line 6). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Kondo to include a server and control system to allow a viewer to select a viewable program without channel surfing as taught by Reed, for the benefit of efficiently providing multiple entertainment sources to video monitors located at passenger seat locations by reducing data bottlenecks and long response times during peak operation.

6. Claims 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo in view of Reed as applied to claim 12 above, and further in view of Galipeau et al. "Galipeau" (USPN 6,249,913) [of record].

As for Claim 18, Kondo and Reed fail to disclose wherein the one program channel corresponds to near video-on-demand program channel. However, in an analogous art, Galipeau discloses wherein the one program channel corresponds to near video-on-demand program channel (Col. 9, lines 17-41). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Kondo and Reed to include wherein the one program channel corresponds to near video-on-demand program channel as taught by Galipeau for the benefit of providing programming to users on a time that is more convenient to the passenger.

As for Claim 19, Kondo, Reed, and Galipeau disclose, in particular Galipeau teaches wherein the multiple MPEG video streams corresponding to the near video-on-demand program channel correspond to different program selections and are transmitted over said one RF channel at a start time commanded by the passenger (Col. 9, lines 17-41).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chris Parry whose telephone number is (571) 272-8328. The examiner can normally be reached on Monday through Friday, 8:00 AM EST to 4:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Grant can be reached on (571) 272-7294. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Chris Parry  
Examiner  
Art Unit 2623

/CP/



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